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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Amendment of Section 73.606(b), Table of Allotments, Television Broadcast Stations. (Green Bay, Wisconsin)	)	MM Docket No. 01-325 RM-10136

To: Chief, Video Services Division

INFORMAL OPPOSITION

Television Wisconsin, Inc. ("WISC"), licensee of WISC-DT (Channel 50; NTSC Channel 3), Madison, Wisconsin (FRN: 0002-7155-63), by counsel, hereby submits this Informal Opposition to the Reply Comments filed by Green Bay 44, L.L.C. ("Green Bay 44") in this proceeding.[1] Green Bay 44 is the proponent of the Commission's proposal to amend the Television Table of Allotments to change the allotment for NTSC Channel 44 at Green Bay, Wisconsin to Channel 50. As discussed in WISC's Comments and confirmed herein, Green Bay 44's proposed NTSC (analog) allotment at Green Bay would create impermissible interference to WISC's digital television facilities.

In its Reply Comments, Green Bay 44 contends that the impermissible interference WISC demonstrated in its initial Comments "can be reduced by lowering the ERP . . . and rotating the station's directional antenna pattern . . . so that the null is placed in the direction of WISC-DT."[2] However, as demonstrated in the Engineering Exhibit of Hammett & Edison, Inc.,

[1] Reply Comments of Green Bay 44, L.L.C., February 5, 2002, ("Reply Comments") submitted in response to *Notice of Proposed Rulemaking, Amendment of Section 73.606(b), Table of Allotments, Television Broadcast Stations (Green Bay, Wisconsin),* MM Docket No. 01-325, DA 01-2753, released November 30, 2001.

[2] Reply Comments at 2.

Consulting Engineers, attached as Exhibit A, Green Bay 44's technical analysis is incorrect. Green Bay 44 uses a baseline population of 1,435,588 persons to calculate that its proposal will result in a permissible 0.483% loss of population for WISC-DT.[3] However, the Commission has clearly stated that the baseline population that must be used for such calculations is the population set forth in the 1997 Table of Allotments.[4] Using the correct population figure for WISC's coverage area, 1,315,000,[5] the loss of population for WISC-DT amounts to 0.53%.[6] This percentage exceeds the Commission's 0.5% rounding tolerance.[7]

As discussed in Exhibit A, Green Bay 44's revised theoretical parameters also increase interference to WPBN-DT (Channel 50), Traverse City, Michigan, to impermissible levels. Specifically, WPBN-DT would lose coverage of 0.7% of its population as a result of Green Bay 44's revised parameters.[8]

Even assuming *arguendo* that the Commission's interference requirements could be met, the theoretical parameters Green Bay 44 relies on in its Reply Comments are flawed. Green Bay 44 theoretically proposes minimal facilities that cannot form the basis for an allotment. The facilities permitted for an analog UHF allotment are 5 megawatts ERP and 2,000 feet (609.7 meters) HAAT.[9] Green Bay 44's proposal, by contrast, is for 1 megawatt ERP and a much lower

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[3] Reply Comments, Appendix A at 3.

[4] *Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 5946 (2001) at ¶ 82, Memorandum Opinion and Order on Reconsideration, FCC 01-330, released November 15, 2001, at ¶ 61; *see* 47 C.F.R. § 73.622(b); *Public Notice*, "Additional Application Processing Guidelines for Digital Television," released August 10, 1998, ("*Application Processing Notice*") at 6.

[5] *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service,* Memorandum Opinion and Order on Reconsideration of Sixth Report and Order, 13 FCC Rcd 7418 (1998), Appendix B at B-43.

[6] Exhibit A at 3.

[7] *See* 47 C.F.R. § 73.623 (c); *Service Rules for the 746-764 MHz Bands and Revisions to Part 27 of the Commission's Rules, Carriage of the Transmissions of Digital Television Broadcast Stations and Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 24 CR 727 (2001) at ¶ 16; *Application Processing Notice* at 4.

[8] Exhibit A at 3.

[9] 47 C.F.R. § 73.614 (b).

height, 1,112 feet (339 meters) HAAT.[10] If the Commission were to accept these theoretical parameters, the result would be the creation of a crippled allotment that would undoubtedly complicate the ability of WISC and others to make future modifications to their facilities or to accommodate properly engineered new allotments. Whereas the Commission permits truncated facilities to be proposed in broadcast *applications*, it should be loathe to make changes in the Television Table of Allotments on the basis of adjustments that can only be made in the context of an application. For example, the Commission grants waiver of its short-spacing rules in the application context, but rarely grants such waivers in order to permit an allotment.[11] There is also not enough "real world" data about interference between analog and digital stations to rely upon theoretical interference determinations when the reality may be far worse.

The Commission should not change the NTSC Channel 44 allotment at Green Bay to Channel 50 on the basis of minimal theoretical facilities such as those suggested by Green Bay 44. These "shoe-horned" theoretical facilities represent a deficient allotment and still interfere with WISC-DT and others. If normal full-power facilities were constructed using the allotment proposed in this proceeding, even more interference would be caused to WISC-DT and perhaps other stations. When it is clear at the allotment stage that there is impermissible interference, the Commission should not place the onus of later challenging Green Bay's modified NTSC application on WISC or others. Instead, the Commission should act promptly to deny the proposed change in allotment.

WHEREFORE, for the reasons set forth above, the Commission should dismiss Green Bay 44's Petition for Rulemaking and terminate this proceeding without change in the Television Table of Allotments.

[10] *See* Reply Comments; Amendment to Petition for Rulemaking of Green Bay 44, L.L.C., October 20, 2000.

Respectfully submitted,

TELEVISION WISCONSIN, INC.

By: _____
Robert J. Rini

By: _____
Sarah E. Stephens

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February 15, 2002

[11] *See* Amendment of Section 73.606(b) Table of Allotments TV Broadcast Stations (Pueblo, Colorado), 16 CR 610 (1999) at ¶ 23.

EXHIBIT A

Station WISC-DT
DTV Channel 50
Madison, Wisconsin

Engineering Exhibit
in Support of *Ex Parte* Comments to
MM Docket 01-325
New Channel 50 NTSC Allotment
for Green Bay, Wisconsin

February 14, 2002

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

Station WISC-DT • DTV Channel 50 • Madison, Wisconsin
Engineering Exhibit in Support of *Ex Parte* Comments to MM Docket 01-325

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Television Wisconsin, Inc., licensee of Station WISC-TV, NTSC Channel 3, Madison, Wisconsin, and permittee of Station WISC-DT, DTV Channel 50, Madison, Wisconsin, to prepare this engineering exhibit in support of *ex parte* comments to MM Docket 01-325, concerning substituting NTSC Channel 50 for NTSC Channel 44 at Green Bay, Wisconsin.

Background Information

In its reply comments, Green Bay 44, L.L.C. ("GB44") proposes to amend its proposed NTSC Channel 50 facilities from 2,000 kW effective radiated power ("ERP") using the Antenna Concepts C-170 azimuth pattern with its axis of symmetry at 290°T, to 1,000 kW ERP "and rotating the station's directional antenna pattern such that the null is placed in the direction of Station WISC-DT." Although GB44 does not explicitly state what this new orientation would be, at best it is a clockwise rotation of 108°, placing the new axis of symmetry at 38°T and placing the back lobe of the pattern at 218°T, which is the bearing from the GB44's proposed site to WISC-DT. The attached Figure 1 shows the originally proposed, and now proposed, azimuth patterns.

Failure to Protect WISC-DT

GB44 states that by reducing the proposed station's ERP by 3 dB and rotating the directional antenna ("DA") pattern to place WISC-DT in the antenna's back lobe the new interference to the WISC-TV construction permit for "maximized" facilities drops to 0.483%, which then becomes zero under the Commission's policy of rounding NTSC into DTV interference to the nearest integer percent. However, GB44 used an incorrect "before" baseline population of 1,435,586 persons (Census basis not specified), whereas the Commission's August 10, 1998, Public Notice *Additional Application Processing Guidelines for Digital Television* explicitly requires that the *Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order to MM Docket 87-268* Appendix B populations be used in all cases, "even if the authorized DTV or NTSC facilities have been modified subsequent to adoption of the Order." Therefore, the correct baseline for WISC-DT is the 1,315,000 persons (1990 Census), as given in Appendix B for the allotted WISC-DT facilities, and not the higher 1,435,586 persons figure. As shown by the attached OET-69 interference study for the now proposed NTSC Channel 50 facilities, the new increase in interference to the WISC-DT CP is 7,000 persons (intentionally still 1990 Census, per the January 19, 2001, *Report and Order* to MM Docket 00-39 (the "DTV Review" rulemaking) and the November 15, 2001, *Memorandum Opinion and Order on Reconsideration* to MM Docket 00-39).

This represents a still prohibited 0.53% of the 1,315,000-person WISC-DT baseline population. Therefore, the interference to WISC-DT is NOT "*de minimus*" and is unacceptable absent a "consent" letter from Television Wisconsin agreeing to accept greater interference. I am advised that Television Wisconsin has issued no such letter to GB44 and that it does not plan to.

New Interference to WPBN-DT

The rotation of the DA pattern causes the ERP towards the WPBN-DT, Channel D50, Traverse City, Michigan, allotment to increase by 10.1 dB, from 96.8 kW to 980 kW. As shown by Figure 2, the OET-69 interference to that station increases from zero* to 0.7%, which again violates the Commission's <0.5% "*de minimis*" policy applying to NTSC stations. (It is noted that, because the permitted WPBN-DT facilities appear to be "checklist," protection is required only for the WPBN-DT allotment and not for the WPBN-DT CP.)

Accordingly, not only does the proposed modification not cure the interference to the permitted WISC-DT facilities, it creates an entirely new problem with respect to WPBN-DT.

Limited Height and Power Inconsistent with NTSC Full-Service Allotment

A normal UHF NTSC TV allotment specifies reference coordinates for a fully-spaced site and allows up to 5,000 kW ERP omnidirectional facilities with an effective height of up to 610 meters. The GB44 proposal for a new NTSC allotment on Channel 50 at Green Bay falls well short of this "full-service" definition. Not only is the proposed GB44 N50 site "short-spaced" to WISC-DT, at 203.4 kilometers versus the 217.4-kilometer minimum separation specified in Section 73.623(d)(2) of the FCC Rules, but now the proposed "allotment" has been further reduced from 2,000 kW to 1,000 kW. Although even further power reductions and continued use of a directional antenna would most likely eventually be able to protect both WISC-DT and WPBN-DT, at some point the Commission must ask if these restrictions have become so extreme as to be inconsistent with the principles behind the establishment of its Table of Allotments. The power proposed by GB44 for the new Channel N50 allotment at Green Bay is now 7 dB below the class maximum allowed for UHF NTSC facilities, and the proposed allotment has to employ a directional antenna with a null depth of at least 12.4 dB† to have any hope of protecting WISC-DT. Further, these proposed NTSC Channel 50 facilities are based on a height above average terrain ("HAAT") of only 339 meters, or slightly more than half of the 610-meter HAAT normally permitted for a UHF NTSC

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* From the OET-69 interference study provided in Figure 2A to WISC-DT's January 18, 2002, MM Docket 01-325 comments.

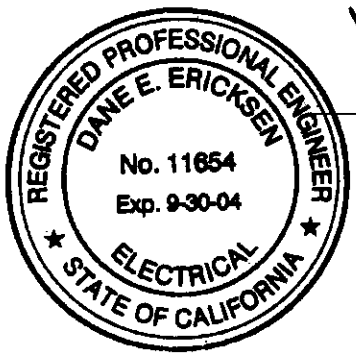
† About 20 dB below maximum for NTSC UHF stations.

allotment. Given all of these constraints, it would appear that, despite GB44's repeated attempts, NTSC Channel 50 simply does not "fit" as an allotment for Green Bay, Wisconsin.

List of Figures

In carrying out these engineering studies, the following attached figures were prepared under my direct supervision:

1. Revised NTSC Channel 50 directional antenna pattern versus originally-proposed pattern
2. OET-69 interference study for revised NTSC Channel 50 facilities.

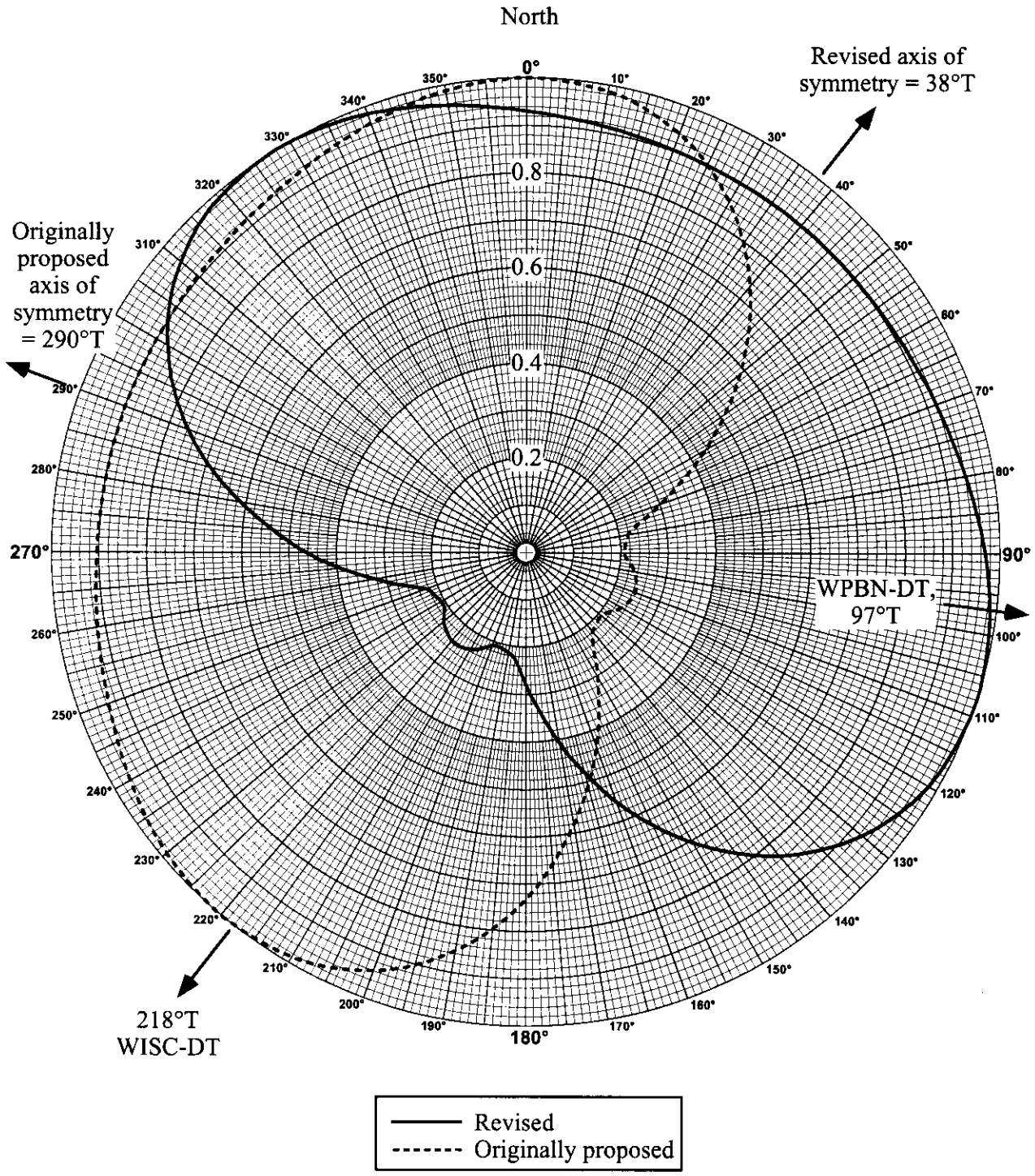


Dane E. Ericksen, P.E.

February 14, 2002

Station WISC-DT • DTV Channel 50 • Madison, Wisconsin
Engineering Exhibit in Support of *Ex Parte* Comments to MM Docket 01-325

Revised NTSC Channel 50 Green Bay, DA Pattern *versus* Originally-Proposed DA Pattern - Relative Field -



OET-69 Interference Study for New Channel 50 NTSC TV Station at Green Bay, Wisconsin (Revised 1,000 kW (DA) Facilities)

Interference analysis
tvixstudy 2.3.13

Before case parameters:
(same as "Original" below)

After case parameters:

	--Modified--	--Original--
Station:	N50 960920YF APP	N44 960920YF APP
City:	GREENBAY, WI	GREENBAY, WI
Coordinates:	N 44-30-48.0	N 44-30-48.0
	W 88-00-24.0	W 88-00-24.0
Height AMSL:	573.0 m	573.0 m
Maximum ERP:	1000 kW	5000 kW
Azimuth pattern:	N50.GREEN_BAYaz.pat	omnidirectional
Orientation:	108.0	
Elevation pattern:	OET-69 generic	OET-69 generic
Service level:	65.0 dBu	64.5 dBu

			Before		After		
		BasePop	IX Change		IX Change		
Protected station		1000s	1000s	%Base	1000s	%Base	%Chng
N36 WMVT LIC	MILWAUKEE, WI	1,879	--	--	--	--	--
N36 WMVT CP	MILWAUKEE, WI	2,053	--	--	--	--	--
N50 WPWR-TV LIC	GARY, IN	8,335	--	--	--	--	--
N49 WJJA CP	RACINE, WI	2,105	--	--	--	--	--
D50 KSTPDT allot	ST. PAUL, MN	2,991	1	0.0	1	0.0	0.0
D50 WPBN-DT CP	TRAVERSE CITY, MI	404	16	4.0	19	4.7	0.7
D50 WPBNDT allot	TRAVERSE CITY, MI	404	2	0.5	5	1.2	0.7
D51 WLUK-DT CP	GREEN BAY, WI	1,007	20	2.0	20	2.0	0.0
D51 WLUKDT allot	GREEN BAY, WI	1,007	2	0.2	2	0.2	0.0
D50 WISC-DT CP	MADISON, WI	1,315	-112	-8.5	-105	-8.0	0.5
D50 WISCDT allot	MADISON, WI	1,315	-2	-0.2	-1	-0.1	0.1

Note: The results of the OET-69 algorithm are dependent on the use of computer databases, including terrain, population, and FCC engineering records. FCC Rules Section 0.434(e) specifically disclaims the accuracy of its databases, recommending the use of primary data sources (i.e., paper documents), which is not practical for DTV interference analyses. Further, while Hammett & Edison, Inc. endeavors to follow official releases and established precedents on the matter, FCC policy on DTV analysis methods is constantly changing. Thus, the results of OET-69 interference and coverage studies are subject to change and may differ from FCC results.

CERTIFICATE OF SERVICE

I, Yvette Graves, a legal secretary with the law firm of Manatt, Phelps & Phillips, LLP, hereby certify that on this 15th day of February, 2002, copies of the foregoing "Informal Opposition" were hand delivered to the following persons at the Commission's hand-delivery receiving location, 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002:

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